

AMENDMENTS TO THE CLAIMS:

The following claim listing will replace all previous listings of the claims:

1. (Currently amended) A method for detecting an aberrant mammary epithelial cell in a subject or in a biological sample from said subject, said method comprising contacting cells or cell extracts from said subject or said biological sample with an antibody specific for LIM domain only 4 (LMO4) ~~or antigenic portion thereof~~, screening for the level of antibody-LMO4 complex formation, comparing the level of the LMO4-antibody complex in the cells from said subject or said sample with the level of the LMO4-antibody complex in normal cells, and determining the presence of an aberrant mammary epithelial cell based on an elevated level of the LMO4-antibody complex in the cells from said subject or said sample relative to normal mammary epithelial cells.

2. (Cancelled)

3. (Currently amended) A method for diagnosing the presence of breast cancer in a subject, said method comprising contacting cells or cell extracts from said subject or a biological sample from said subject with a LMO4-binding effective amount of an antibody having specificity for said LMO4 ~~or an antigenic determinant or epitope therein~~, quantitatively or qualitatively determining the level of a LMO4-antibody complex, comparing the level of the LMO4-antibody complex in the cells from said subject or said sample with the level of the LMO4-antibody complex in normal cells, and determining the presence of breast cancer based on an elevated level of the LMO4-antibody complex in the cells from said subject or said sample relative to normal cells.

4-17. (Cancelled)

18. (Currently amended) The method according to claim 1 wherein said antibody is selected from:

(i) a deimmunized antibody molecule having specificity for an epitope recognized by a

monoclonal antibody of specific for LMO4 wherein said antibody is deimmunized with respect to the host into which it will be introduced;

- (ii) an isolated monoclonal antibody wherein said antibody interacts with LMO4;
- (iii) the monoclonal antibody secreted by hybridoma 16H2 (ECACC Accession No. 03052001);
- (iv) the monoclonal antibody secreted by hybridoma 20F8 (ECACC Accession No. 03052002).

19-21. (Cancelled)

22. (Currently amended) A method of detecting, ~~in a sample~~, LMO4 ~~in a sample~~, or ~~fragment thereof~~ comprising contacting the sample with an antibody or a fragment thereof specific for LMO4 ~~or fragment thereof~~, detecting the level of a complex comprising said antibody or said fragment and LMO4 ~~or fragment thereof~~, and comparing the level of said complex in said sample with the level of complex in normal controls and determining an indication of breast cancer growth based on an elevated level of the complex in said sample relative to said normal controls.

23. (Currently amended) The method according to claim 22 wherein said antibody is selected from:

- (i) a deimmunized antibody molecule having specificity for an epitope recognized by a monoclonal antibody of specific for LMO4 wherein said antibody is deimmunized with respect to the host into which said antibody will be introduced;
- (ii) an isolated monoclonal antibody wherein said antibody interacts with LMO4;
- (iii) the monoclonal antibody secreted by hybridoma 16H2 (ECACC Accession No. 03052001);
- (iv) the monoclonal antibody secreted by hybridoma 20F8 (ECACC Accession No. 03052002).

24-40. (Cancelled)

41. (Previously Presented) A method for detecting an aberrant mammary epithelial cell in a subject or in a biological sample from said subject, said method comprising contacting cells or cell extracts from said subject or said biological sample with an antibody or fragment thereof specific for LMO4, and detecting an elevated level of LMO4 relative to a normal cell as indicative of an aberrant mammary epithelial cell.